



News Release | www.linear.com

Universal Cell Phone LED/CAM Driver Features 600mA Total Output Current & 92% Efficiency

MILPITAS, CA – April 16, 2007 – Linear Technology Corporation announces the LTC3207, an inductorless, low noise, high efficiency LED/CAM driver for cell phone displays and lighting. The IC provides 12 individually configurable current sources for Main, Sub, RGB, Auxiliary or general purpose (GPO) displays/lights/outputs, plus drive capability for one high-current 400mA LED camera light. The universal current sources have digital control with independent dimming, brightness, blinking, and gradation control, programmable via a simple two-wire I²C serial interface. Camera flash (pulsed) or torch (continuous) current levels can be selected real time by the CAMHL pin or alternatively can be controlled by the I²C port. The LTC3207's input voltage range of 2.9V to 5.5V has been optimized for single cell Li-Ion/Polymer battery applications. When driven from a Lithium battery (3.6V nominal), efficiencies reach 92%, with a quiescent current of only 500uA, maximizing battery run-time. Slew-rate limited switching reduces conducted and radiated noise (EMI).

The LTC3207's multimode charge pump features low-noise constant-frequency operation, automatically optimizing efficiency based on V_{IN} and LED forward voltage conditions. The device powers up in 1x mode and automatically switches to boost mode (1.5x) when any enabled LED current source approaches dropout; a subsequent dropout switches the device into doubler (2x) mode. Internal circuitry prevents inrush current and excessive input noise during start-up and mode switching. In addition, the device has short circuit and thermal protection.

The LTC3207 is available from stock in the low-profile 24-lead QFN (4mm x 4mm) package. The IC requires only five small capacitors to create a tiny, complete LED power supply and current controller solution. Pricing starts at \$1.95 each for 1,000-piece quantities.


Photo Caption: 600mA Universal Multi-Output LED/CAM Driver

Summary of Features: LTC3207

- Multimode 1x/1.5x/2x Charge Pump Provides up to 92% Efficiency
- Slew Limited Switching Reduces Conducted & Radiated Noise (EMI)
- Up to 600mA Total Output Current
- 12 Universal Independently Configurable 28mA Current Sources with 64-Step Linear Brightness Control
- 400mA CAM LED Current Source with 16-Step Linear Brightness Control and 2-Second High Current Safety Timer
- Independent ON/OFF, Brightness Level, Blinking and Gradation Control for Each Current Source Using 2-Wire I²C Interface
- Automatic or Manual Mode Switching
- Low Noise, Constant Frequency Operation
- Internal Soft-Start Limits Inrush Current
- Short Circuit/Thermal Protection
- 2.9V to 5.5V Input Voltage Range
- Low-Profile 4mm x 4mm x 0.75mm QFN-24 Package

About Linear Technology

Linear Technology Corporation, a manufacturer of high performance linear integrated circuits, was founded in 1981, became a public company in 1986 and joined the S&P 500 index of major public companies in 2000. Linear Technology products include high performance amplifiers, comparators, voltage references, monolithic filters, linear regulators, DC-DC converters, battery chargers, data converters, communications interface circuits, RF signal conditioning circuits, and many other analog functions. Applications for Linear Technology's high performance circuits include telecommunications, cellular telephones, networking products such as optical switches, notebook and desktop computers, computer peripherals, video/multimedia, industrial instrumentation, security monitoring devices, high-end consumer products such as digital cameras and MP3 players, complex medical devices, automotive electronics, factory automation, process control, and military and space systems. For more information, visit www.linear.com

LT, LTC, LTM and  are registered trademarks of Linear Technology Corp.

Press Contacts:

John Hamburger, Director Marketing Communications
jhamburger@linear.com
Tel 408-432-1900 ext 2419

Doug Dickinson, Media Relations Manager
ddickinson@linear.com
408-432-1900 ext. 2233